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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/764,138

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Benedicte Charrier

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CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC
1420 FIFTH AVENUE
SUITE 2800
SEATTLE, WA 98101-2347

EXAMINER

WORLEY, CATHY KINGDON

ART UNIT

PAPER NUMBER

1638

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/764,138	Applicant(s) CHARRIER ET AL.	
	Examiner Cathy K. Worley	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-24 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claim 2, drawn to a process for the production of a transgenic plant with aborted embryos, classified in class 800, subclass 290, for example.
- II. Claim 3, drawn to a process for the production of a transgenic plant with an increased number of cotyledons, classified in class 800, subclass 290, for example.
- III. Claim 4 (in part), drawn to a process for the production of a transgenic plant wherein at least one plant cell is transformed with an antisense DNA construct, classified in class 800, subclass 286, for example.
- IV. Claim 4 (in part), drawn to a process for the production of a transgenic plant wherein at least one plant cell is transformed with a sense DNA construct, classified in class 435, subclass 468, for example.
- V. Claim 4 (in part), drawn to a process for the production of a transgenic plant wherein at least one plant cell is transformed with a DNA construct comprising a transposable element, classified in class 800, subclass 291, for example.

- VI. Claim 5, drawn to a process for the production of a transgenic plant comprising a DNA construct capable of eliminating the expression of an endogenous ASK-gene of group II, classified in class 800, subclass 285, for example.
- VII. Claim 6 (in part), drawn to a process for the production of a transgenic plant comprising a sequence derived from an ASKdzetha gene, classified in class 800, subclass 278, for example.
- VIII. Claim 6 (in part), drawn to a process for the production of a transgenic plant comprising a sequence derived from an ASK-etha gene, classified in class 800, subclass 278, for example.
- IX. Claim 7, drawn to a process for the production of a transgenic plant comprising a DNA fragment of 150-300 bp corresponding to the 5'-untranslated region and a part of the N-terminal coding region of ASK-genes of group II, classified in class 435, subclass 468, for example.
- X. Claims 12 and 15 (in part), drawn to a process for the production of a transgenic plant comprising utilizing a plasmid vector and transferring the DNA via a bacterium, classified in class 435, subclass 469, for example.
- XI. Claims 12 and 15 (in part), drawn to a process for the production of a transgenic plant comprising utilizing a viral vector and transferring the DNA via virus, classified in class 435, subclass 440, for example.

- XII. Claim 15 (in part), drawn to a process for the production of a transgenic plant in which the DNA is transferred via microinjection, classified in class 435, subclass 470, for example.
- XIII. Claim 15 (in part), drawn to a process for the production of a transgenic plant in which the DNA is transferred via particle bombardment, classified in class 800, subclass 293, for example.

GROUPS I-XIII ARE LINKED BY CLAIMS 1, 8-11, 13-14, AND 16

- XIV. Claims 17 and 22-24, drawn to an antisense construct and transgenic plants or seeds, classified in class 536, subclass 24.5, for example.

**CLAIMS 18-21 ARE NOT IN ANY GROUP BECAUSE THEY ARE
IMPROPERLY DEPENDENT AND IT IS IMPOSSIBLE TO
DETERMINE WHAT GROUP THEY SHOULD BELONG TO.**

The inventions are distinct, each from the other because of the following reasons:

The process of group I is patentably distinct from the processes of groups II-XIII. The processes of groups II-XIII could be used for a materially different purpose, for example, they could be used to produce a plant with an increased number of cotyledons instead of a plant with aborted embryos. The process of group I is also patentably distinct from the construct and plants and seeds of group XIV. The plants and seeds of group XIV could be made by a different process, such as the process of group II, for example.

A search for the process of group I will require searching the literature for mechanisms of inducing aborted embryos in plants. None of the other groups require this search. Therefore the searches are not coextensive and it would constitute an undue burden to examine more than one of these groups simultaneously.

The process of group II is patentably distinct from the processes of groups I and III-XIII. The processes of groups I and III-XIII could be used for a materially different purpose, for example, they could be used to produce a plant with aborted embryos instead of a plant with an increased number of cotyledons. The process of group II is also patentably distinct from the construct and plants and seeds of group XIV. The plants and seeds of group XIV could be made by a different process, such as the process of group I, for example.

A search for the process of group II will require searching the literature for mechanisms of inducing an increased number of cotyledons in plants. None of the other groups require this search. Therefore the searches are not coextensive and it would constitute an undue burden to examine more than one of these groups simultaneously.

The process of group III is patentably distinct from the processes of groups IV-XIII and the products of group XIV. The processes of groups IV-XIII can be practiced using a substantially different starting material, for example, the processes of groups IV-XIII could be practiced using a sense DNA construct or a

transposable element instead of using an antisense construct. The plants and seeds of group XIV can be made with a different DNA construct, for example a sense construct or a construct comprising a transposable element.

A search for the process of group III will require searching the literature for methods utilizing antisense constructs. The other groups will not require searching the literature for methods utilizing antisense constructs. Therefore these searches are not coextensive and examining more than one of these inventions would constitute an undue burden.

The process of group IV is patentably distinct from the processes of groups V-XIII and the products of group XIV. The processes of groups V-XIII can be practiced using a substantially different starting material, for example, the processes of groups V-XIII could be practiced using an antisense DNA construct or a transposable element. The plants and seeds of group XIV can be made with a different DNA construct, for example, an antisense construct or a construct comprising a transposable element.

A search for the process of group IV will require searching the literature for methods wherein an ASK gene is expressed in the sense orientation. A search for the other groups will not require this, and therefore the searches are not coextensive. Examining more than one of these inventions simultaneously would constitute an undue burden.

The process of group V is patentably distinct from the processes of groups VI-XIII and the products of group XIV. The processes of groups VI-XIII can be practiced using a substantially different starting material, for example the processes of groups VI-XIII could be practiced using an antisense or a sense DNA construct rather than using a DNA construct comprising a transposable element. The plants and seeds of group XIV can be made with using an antisense or a sense DNA construct rather than a DNA construct comprising a transposable element.

A search for the process of group V will require searching the literature for methods utilizing transposable elements. A search for the other groups will not require this, and therefore the searches are not coextensive. Examining more than one of these inventions simultaneously would constitute an undue burden.

The process of group VI is patentably distinct from the processes of groups VII-XIII and the products of group XIV. The processes of groups VII and XIII can be practiced by either expressing the protein encoded by a sense construct or by inhibition of expression with antisense wherein the inhibition is partial and does not completely eliminate expression of the endogenous gene. The products of group XIV can be made utilizing antisense with incomplete inhibition of expression.

A search for the process of group VI will require searching the literature for methods that are successful in "eliminating" expression of endogenous genes, for example by insertional mutagenesis. A search for the other groups will not require

this, and therefore the searches are not coextensive. Examining more than one of these inventions simultaneously would constitute an undue burden.

The process of group VII is patentably distinct from the processes of groups VIII-XIII and the products of group XIV. The processes of groups VIII-XIII can be practiced and the products of group XIV can be made using a substantially different starting material, for example, a sequence derived from an ASK-etha gene could be used instead of a sequence derived from an ASKdzetha gene.

A search for the process of group VII will require searching the literature for an ASKdzetha gene. A search for the other groups will not require this, and therefore the searches are not coextensive. Examining more than one of these groups would constitute an undue burden.

The process of group VIII is patentably distinct from the processes of groups IX-XIII and the products of group XIV. The processes of groups IX-XIII can be practiced and the products of group XIV can be made using a substantially different starting material, for example, a sequence derived from an ASKdzetha gene could be used instead of a sequence derived from an ASK-etha gene.

A search for the process of group VIII will require searching the literature for an ASK-etha gene. A search for the other groups will not require this, and therefore the searches are not coextensive. Examining more than one of these groups would constitute an undue burden.

The process of group IX is patentably distinct from the processes of groups X-XIII and the products of group XIV. The processes of groups X-XIII can be practiced and the products of group XIV can be made using substantially different starting materials. For example, a full-length ASK cDNA could be utilized rather than a 150-300 bp. fragment.

A search for the process of group IX will require searching for fragments of ASK genes. A search for the other groups will not require this, and therefore the searches are not coextensive. Examining more than one of these groups would constitute an undue burden.

The process of group X is patentably distinct from the processes of groups XI-XIII and the products of group XIV. The processes of groups XI-XIII can be practiced and the plants of group XIV can be made using substantially different method steps. For example, viral vectors, particle bombardment, or microinjection could be used for the DNA transfer to the plant cells rather than bacterium and a plasmid.

A search for the process of group X will require searching the literature for methods utilizing plasmids and bacterium for DNA transfer into plant cells. A search for the other groups will not require this, and therefore the searches are not coextensive. Examining more than one of these groups would constitute an undue burden.

The process of group XI is patentably distinct from the processes of groups XII-XIII and the products of group XIV. The processes of groups XII-XIII can be practiced, and the products of group XIV can be made using substantially different method steps. For example, microinjection or particle bombardment could be used for the DNA transfer to the plant cells rather than a viral vector.

A search for the process of group XI will require searching the literature for methods utilizing viral vectors for DNA transfer into plant cells. A search for the other groups will not require this, and therefore the searches are not coextensive. Examining more than one of these groups would constitute an undue burden.

The process of group XII is patentably distinct from the process of group XIII and the products of group XIV. The process of group XIII can be practiced and the products of group XIV can be made using substantially different method steps. For example, particle bombardment could be used for the DNA transfer to the plant cells rather than microinjection.

A search for the process of group XII will require searching the literature for methods utilizing microinjection to transfer DNA into plant cells. A search for the other groups will not require this, and therefore the searches are not coextensive. Examining more than one of these groups would constitute an undue burden.

The process of group XIII is patentably distinct from the products of group XIV. The products of group XIV can be made using substantially different method

steps, for example, the DNA can be transferred to the plant cells using microinjection, bacterium-mediated transfer, or viral-vector-mediated transfer.

A search for the process of group XIII will require searching the literature for methods utilizing particle bombardment. A search for the products of group XIV will not require this, and therefore the searches are not coextensive. Examining more than one of these groups would constitute an undue burden.

Claims 1, 8-11, 13-14, and 16 link the inventions of groups I-XIII. The restriction requirement between the linked inventions is subject to the nonallowance of the linking claims, claims 1, 8-11, 13-14, and 16. Upon the allowance of the linking claims, the restriction requirement as to the linked inventions shall be withdrawn and any claims depending from or otherwise including all the limitations of the allowable linking claims will be entitled to examination in the instant application. Applicants are advised that if any such claims depending from or including all the limitations of the allowable linking claims are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant applications. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP 804.01.

The examiner has required restriction between product (group XIV) and process (groups I-XIII) claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above

policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy K. Worley whose telephone number is (571) 272-8784. The examiner can normally be reached on M-F 8:30 - 5:00.

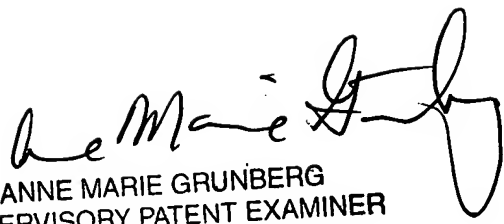
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 21, 2006


ANNE MARIE GRUNBERG
SUPERVISORY PATENT EXAMINER